

## REMARKS ON JAPANESE QUAILS.

BY  
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When writing my remarks on the Japanese quails recently sent me by Dr. Ijima (Proc. U. S. Nat. Mus., XVI, 1893, p. 623) I had not yet seen Mr. Oglivie Grant's "Notes on the Genus *Coturnix*" (Ann. Mag. Nat. Hist. (6) x, 1892, pp. 166-173), in which he advances the theory, or rather announces as a demonstrated fact, that there are two species occurring in Japan (and other portions of eastern Asia) viz: *C. coturnix*, the typical European species, and *C. japonica*, which, in their purity, may be distinguished as follows:

- a*<sup>1</sup> Feathers on throat and chin short and rounded.
- b*<sup>1</sup> A black band down the middle of the throat ..... *C. coturnix* ♂
- b*<sup>2</sup> No black band down the middle of the throat.
- c*<sup>1</sup> Chin and throat white ..... *C. coturnix* ♀
- c*<sup>2</sup> Chin and throat dark vinaceous-cinnamon [dull brick-red, O. G.]  
*C. japonica* ♂ ad.
- a*<sup>2</sup> Feathers on throat and chin elongate and lanceolate.
- b*<sup>1</sup> Entire throat white ..... *C. japonica* ♀
- b*<sup>2</sup> Middle of throat suffused with dark cinnamon-rufous ..... *C. japonica* ♂ juv.

The multitude of specimens which do not fall within the limits I have here drawn, he disposes of by the following remark: "The intermediate forms are, as I shall presently show, undoubtedly the results of interbreeding." But I am sorry to say that he does not show this, for there is no discussion of the material upon which he bases his remarks, nor are we furnished with a list of his specimens with the accompanying data upon which we might be enabled to base an opinion as to the correctness of his conclusions. All he gives us is a bare assertion to the above effect, the essential part of which is as follows: "In Japan and China the migratory Quail (*C. coturnix*), as already pointed out, inhabits the same tract of country during the breeding season as *C. japonica*, and there can not be the slightest doubt that the two species frequently interbreed, with the result that all sorts of intermediate hybrids are produced. These intermediate plumages are most noticeable among the male hybrids. For instance, some have the dull brick-red throat of *C. japonica* and the black anchor-shaped mark of *C. coturnix*, others have only the upper two-thirds of the throat dull red and the lower third white, while again a third lot have, in addition, a black band down the center of the red part, and all kinds of intermediate stages between these three examples may be found."

It is evidently in order to meet the objection that rufous-throated males are often found in Europe that he makes the following remark: "Equally also, though of secondary importance, *C. coturnix* interbreeds freely with the red-throated resident race (*C. capensis*)\* in South Africa and the islands surrounding the coast, and the results are seen in the many male birds from South Africa and Southern Europe, etc., in which the white parts on the sides of the head and throat are more or less suffused with the bright rufous chestnut of the resident bird."

But this is hardly more than a postulate, and it is, in fact, somewhat difficult to see how such a hybridization can take place between a resident species and a subspecies (and he calls them only "races"). The results to be found both among the residents and the migrants, the facts are that these so-called intermediates between *C. capensis* and *C. coturnix* are not only found in South Africa and Southern Europe, but that they are quite common in Central Europe, as evidenced by the detailed description of the throat color and markings by Naumann (Naturg. Vög. Deutschl., VI, 1833, pp. 578, 579, and particularly pp. 580-581). From his remarks it will be seen that the male quails in Germany vary as much and almost in the same way as the Japanese and Chinese birds described by Mr. Ogilvie-Grant, and by him asserted to be hybrids.

Looking over my material I find nothing in it to contradict the supposition that the color and markings of the throat of the male Japanese bird is subject to as much individual variation as in the German bird, and I can see no reason for regarding these various plumages as "intermediate stages" or "hybrids." I think such a view also effectually disposes of the somewhat curious peculiarity that "these intermediate plumages are most noticeable among the male hybrids."

Mr. Ogilvie-Grant does not mention any specimens in which the supposed hybridism is expressed in an intermediate state of the elongated throat feathers. On the other hand, in the males he regards the presence of these specialized feathers as the sign of youth, in support of which he mentions the case of "a rather more mature male" in which "one side of the throat has lost the immature elongate feathers like those of the female and assumed the short, rounded, dull rufous feathers characteristic of the male adult," but all other data which would make it profitable to discuss the case are wanting.

I now turn to the material before me.

(1) U. S. Nat. Mus., No. 95980; ♂ ad.; collected by Blakiston at Saporu, Yezo, May, 11, 1877. In coloration this specimen is exactly like the front figure of Fauna Jap. Av., pl. lxi, with the exception that the posterior half of the superciliary stripe is white and the anterior half spotted with white; the flank feathers are less marked with blackish; throat feathers, both in the middle and on the sides, short and rounded.

\* I would suggest that the proper name of this subspecies is *Coturnix coturnix africana* (Schlegel) (see Fauna Jap. Aves, p. 103). There is no reference to this name in Mr. Ogilvie-Grant's synonymy.

(2) Imp. Mus., Tokyo, No. 2168; Province of Owari, Hondo; Mr. Ota coll.; no date. Coloration almost identical with the foregoing specimen, though with a faint blackish wash on the middle of the throat. Otherwise the similarity of the two specimens is so complete that I have no hesitation in pronouncing it of the same sex and age as the foregoing. Throat feathers in the middle short and rounded; on the sides perceptibly longer and narrower, though not pointed.

(3) Imp. Mus., Tokyo, No. 2170; Province of Owari, Hondo; no date. Coloration like 1 and 2, but chin, middle of throat, and first lateral branch of the throat patch black; flanks as in figure quoted above; throat feathers much as in 2.

The above three specimens thus appear to be fully adult summer males.

(4) U. S. Nat. Mus., No. 109409; ♂; Shimosa, Hondo; December 22, 1885. General coloration much as the above, but all light markings, including superciliary stripe, more strongly washed with buff; breast deeper ferruginous; chest feathers with a large chestnut spot in either web, but no black spots; feathers on middle of throat dull cinnamon-rufous, with broad white terminal margins; those on the sides of throat and on cheeks cinnamon-rufous with a white shaft streak, with terminal black spots on the cheeks. Middle throat feathers rounded; lateral ones elongated and pointed; a few of the latter still in their sheaths.

The richness of the coloration, especially that of the breast, leads me to believe that this is a fully adult male in, at least, its second winter.

(5) U. S. Nat. Mus., No. 91582; ♂; Yokohama, Hondo; April 4, 1883; P. L. Jouy coll. Considerably paler than any of the foregoing; throat and upper fore neck white, with a narrow dusky band down the middle of the throat, united below with a semicircular dusky line descending from the ear; lateral throat feathers edged with cinnamon-rufous; middle ones more or less suffused with the same color and tipped with whitish; a few blackish spots on the chest; all the throat feathers elongate and pointed.

(6) U. S. Nat. Mus., No. 95983; sex not given; A. Owston coll.; no date. Practically identical with foregoing, except that only lateral throat feathers are pointed, the median ones being short and rounded.

(7) U. S. Nat. Mus., No. 95982; ♂; Nagasaki, Kiusiu; January 1, 1877; F. Ringer coll. Like the foregoing, but throat band twice as broad, occupying the whole middle part and continued backward beyond the first semicircular line, though not reaching the second; throat feathers all strongly elongated and pointed.

(8) U. S. Nat. Mus., No. 114127; ♂; Fusan, Korea; November 21, 1885; P. L. Jouy coll. Like the foregoing, but throat and upper fore neck pure white, with a faint indication of a dusky band down the middle of the throat, caused by the dark bases of the feathers shining through the white tips; two semicircular black lines, the upper one imperfect on the median line; median throat feathers rounded, lateral ones moderately elongated, pointed.

(9) U. S. Nat. Mus., No. 114126; ♂ : 40 miles from Seoul, Korea; November 11, 1883; P. L. Jouy coll. Like foregoing, with pure white throat, but sinicircular lines scarcely indicated; middle throat feathers short and rounded, lateral ones elongated and pointed, but even less marked than in the foregoing; a number of these feathers, however, still in their sheaths.

The above six specimens (4-9) are unquestionably males, but I would not like to say anything concerning their age. Thus I can not bring myself to believe that 7, with its widely and distinctly black throat, is a very young bird, in spite of the fact that the feathers are more pointed and longer than in any of the others.

(10) U. S. Nat. Mus., No. 109410; ♀ : Shimosa, Hondo; December 22, 1885. General coloration like 8 and 9, but throat suffused with buff and chest with numerous rows (at least five) of black spots; middle throat feathers rounded, lateral ones pointed, elongated.

(11) U. S. Nat. Mus., No. 95981; ♀ ; Yubuts, Yezo; September 13, 1882; Blakiston coll. Very pale and very little rust color on back; throat white, washed with buff; chest thickly spotted with black; flanks also heavily marked with black; lateral throat feathers pointed, middle ones less so; feathers appear considerably worn.

(12) In this enumeration of our Japanese and Korean specimens I have omitted No. 15849, collected during the Perry expedition by W. Heine, because it is unsexed and with no definite locality, besides being now somewhat soiled and faded. It seems to be most like No. 4 of this enumeration.

Our European series available at the present writing is very poor, but I wish to call attention to one specimen.

(13) U. S. Nat. Mus., No. 100345; ♂ ; Koneza, Transsylvania, Hungary; August 28, 1883; J. von Csato coll. Throat coloration almost identical with Ringer's Nagasaki specimen (7), except that the lateral feathers are not marked with cinnamon-rufous. The lateral throat feathers are perceptibly lengthened and pointed, fully as much as the Korean example (9).

In the above series there are hardly two specimens in which the throat feathers are of exactly the same size and shape. Mr. Ogilvie-Grant will probably maintain that this is exactly what we would expect in the hybrids. On the other hand, I would call attention to the fact that an intermediate shape is not at all coincident with an intermediate coloration or pattern. Specimen 7 is in this respect very instructive, as it unites the extreme elongation of the feathers of *C. japonica* with the extreme blackness of the throat of *C. coturnix*. Were we to accept the theory of hybridism, there would only be one pure-bred specimen (1) in the whole lot. This one is a typical *C. japonica*, and were we to identify our specimens by means of the key all, except No. 3, must be called *C. japonica*. The fact that a European specimen (13) also shows elongated pointed lateral throat feathers throws considerable doubt upon the value of this character as being diagnostic.

I have yet to see undoubted specimens of *C. coturnix* from Japan. Of course, that proves nothing, for Mr. Ogilvie-Grant may have seen them, but with his paper and the above-described series of specimens before me I can only say in regard to the occurrence of the two species in Japan "not proven."

Concerning the exact significance of the elongated throat feathers in the eastern birds, I have no well-founded theory to offer, but it seems to me as if there might be only a strong tendency toward the development of a "beard" in the eastern form, with an individual variation in this respect similar to the throat coloration.

It will probably remain for the Japanese field ornithologists to settle this question by the study of large series of fresh birds.

I hope that the above remarks may help them to fully understand the issue and consequently to collect intelligently.